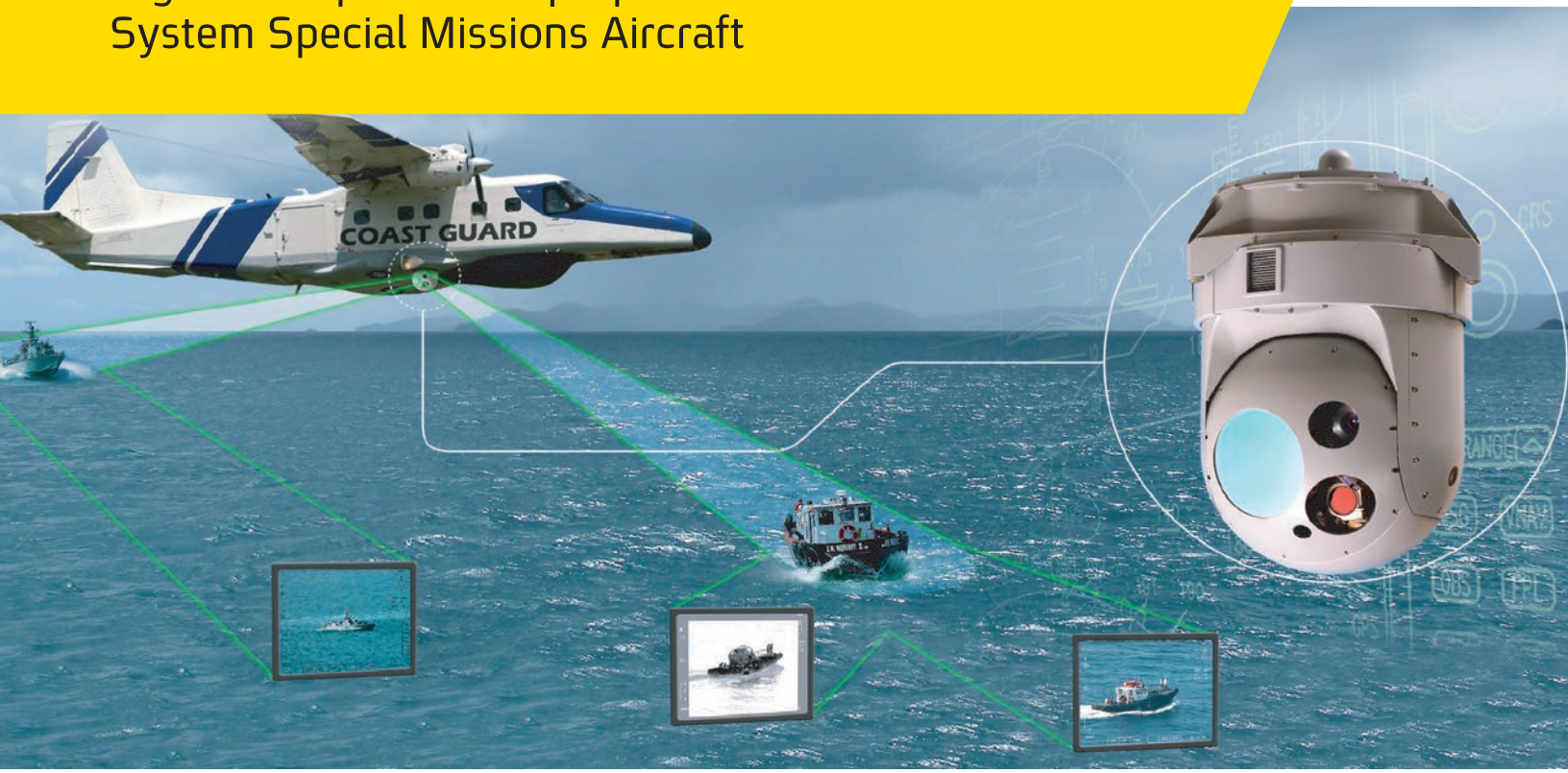
DCoMPASS™

Digital Compact Multi-purpose Advanced Stabilized System Special Missions Aircraft



General

The DCoMPASS payload is one of the newest members of our battle-proven stabilized EO payload family, in service with leading customers worldwide.

- Delivers superb day and night intelligence, surveillance, target acquisition and tactical reconnaissance (ISTAR)capabilities in the harshest weather conditions
- Single LRU configuration integrating up to five EO elements: HD color TV camera with optional low light mode, large format thermal imager, laser target illuminator, eyesafe laser range finder and laser target designator
- Lightweight, small payload made possible by new miniature digital electronics and advanced lightweight materials
- Battle proven, military-qualified for airborne application

Elbit Systems™ ISTAR & EW

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Applications

- Long-range reconnaissance
- Maritime patrol
- Law enforcement

Main Advantages & Features

- Highly stabilized crystal clear image on both HD color TV and thermal imager
- Compact and lightweight design permits additional payload and fuel capacity in the carrying platform while facilitating future upgrades
- Inertial measurement unit (IMU) provides highly accurate geo-location and rock solid stabilization
- Unique in-flight boresight mechanism enables long range precise laser designation
- Simple system integration with helmet mounted systems (HMS), radar and fire control applications
- Advanced video enhancement package including: haze penetration, color restoration and sharpening feature

Technical Data

System:

• Diameter	15″
• Weight	33-38 kg
• Angular coverage	
- Azimuth	N x 360º
- Elevation	+35º to -85º
• Environmental conditions	MIL-STD-810

Day Channel (HD)

• Camera type	Large format digital CCD color camera
• Sensor	2/3″ CCD
• No. of pixels	1394 x 1040
• FOV (continuous zoom):	

	Digital	Analog
Narrow	0.59º X 0.44º	0.36 º X 0.27º
Wide	24 º X 18 º	14 º X 10.5 º

Thermal Imager

• FLIR	Cooled 3rd generation 3-5µm FPA with 640 x 512 pixels

- FOV

	FLIR A - TOPAZ	FLIR B - LOTUS
Wide	24º X 18º	13.7° X 10.4°
Medium	Continuous	2.0° x 1.5°
Narrow	0.8º X 0.6º	0.61° x 0.46°

Laser Rangefinder (Eyesafe)

• Laser Sensors	
- Wavelength	1.54µm
- Rate	1 pps(10 pps option)
• Dual Wavelength Laser Target Designator & Rangefinder (LRFTD)	
- Transmitter	Diode-pumped advanced technology
- Wavelength	1.064 µm / 1.57 µm
- Max pulse rate	20pps
• Laser target illuminator/pointer	
- Wavelength	830 nm (NVG compatible)

Interface Communications

- RS422
- MIL-STD-1553
- Ethernet

Video Output

- PAL, NTSC
- Gigabit Ethernet (GigE)

Additional features

- Geo-location using Inertial Measurement Unit (IMU)
- Auto-tracker
- Step & Stare
- Picture In Picture (PIP)

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